CLAIMS

What is claimed is:

1. A heat dissipation apparatus, comprising:

a heat sink that is adapted to receive a processor, the heat sink forming part of an enclosed interior passage; and

at least one prong extending from the heat sink and positioned within the interior passage;

wherein the enclosed interior passage is adapted to receive fluid forced through the interior passage.

2. The apparatus of claim 1, wherein the heat sink comprises a relatively thin plate.

3. The apparatus of claim 1, wherein the heat sink has a top surface and a bottom surface, wherein the at least one prong extends from the top surface and wherein the bottom surface is adapted to receive a processor removably mounted thereto.

4. The apparatus of claim 1, wherein the at least one prong comprises a cylindrical rod.

5. The apparatus of claim 1, further comprising walls that enclose the interior passage, at least one of the walls being connected to the heat sink.

6. The apparatus of claim 5, wherein the walls include opposed side walls that are connected to the heat sink and a top wall that is positioned opposite the heat sink.

7. The apparatus of claim 1, wherein the apparatus has an inlet end that is adapted to receive a forced fluid flow and an outlet end that is adapted to exhaust the fluid flow.

8. The apparatus of claim 7, further comprising an inlet fan module positioned at the inlet end of the apparatus, the inlet fan module being adapted to force fluid into the interior passage.

9. The apparatus of claim 7, further comprising an outlet fan module positioned at the outlet end of the apparatus, the outlet fan module being adapted to draw fluid out of the interior passage.

10. A heat dissipation apparatus, comprising:

a heat sink having a top surface and a bottom surface, the bottom surface being adapted to receive a processor that is removably mounted thereto;

enclosure walls that together with the heat sink form an enclosed interior passage;

prongs contained with the enclosed interior passage, the prongs extending from the top surface of the heat sink; and

a fan positioned at one of an inlet end and an outlet end of the apparatus, the fan facilitating flow of fluid through the enclosed interior passage and over the prongs.

11. The apparatus of claim 10, wherein the heat sink comprises a relatively thin plate.

12. The apparatus of claim 10, wherein the heat sink and the enclosure walls are made of a thermally-conductive material.

13. The apparatus of claim 12, wherein the heat sink and the enclosure walls are made of a metal material.

14. The apparatus of claim 10, wherein the prongs comprise cylindrical rods.

15. The apparatus of claim 14, wherein the cylindrical rods are made of a metal material.

16. The apparatus of claim 12, wherein the apparatus has an inlet end that is adapted to receive a forced fluid flow and an outlet end that is adapted to exhaust the fluid flow.

17. The apparatus of claim 16, further comprising an inlet fan module positioned at the inlet end of the apparatus, the inlet fan module being adapted to force fluid into the interior passage.

18. The apparatus of claim 16, further comprising an outlet fan module positioned at the outlet end of the apparatus, the outlet fan module being adapted to draw fluid out of the interior passage.

19. A heat dissipation apparatus for dissipating heat generated by a processor, the apparatus comprising:

means for contacting the processor;

means for enclosing an interior passage of the heat dissipation apparatus;

means for transmitting heat away from the means for contacting the processor; and

means for generating fluid flow through the interior passage.

20. The apparatus of claim 19, wherein the means for contacting the processor comprise a heat sink.

21. The apparatus of claim 19, wherein the means for enclosing an interior passage comprise enclosure walls.

22. The apparatus of claim 19, wherein the means for transmitting heat away from the means for contacting the processor comprise at least one prong positioned within the interior passage.

23. The apparatus of claim 19, wherein the means for generating fluid flow comprise a fan positioned at one of an inlet end and an outlet end of the apparatus.

24. The apparatus of claim 23, wherein the means for generating fluid flow further comprise another fan positioned at the other of the inlet end and the outlet end of the apparatus.

25. A method for dissipating heat generated by a processor, the method comprising:

forming an interior passage in part with a heat sink to which the processor is mounted; and

forcing the fluid through the interior passage and over prongs contained within the interior passage and extending from the heat sink.

26. The method of claim 25, wherein forming an interior passage comprises forming an interior passage with the heat sink and enclosure walls.

27. The method of claim 25, wherein forcing fluid through the interior passage comprises forcing fluid into the interior passage using a fan positioned at an inlet end of a heat dissipation apparatus.

28. The method of claim 27, wherein forcing fluid through the interior passage comprises drawing fluid out of the interior passage using a fan positioned at an outlet end of a heat dissipation apparatus.

29. A computer, comprising:

a processor; and

a heat dissipation apparatus that includes a heat sink that is adapted to receive the processor and that forms part of an enclosed interior passage, the heat dissipation apparatus further including at least one prong extending from the heat sink and positioned within the interior passage, wherein the enclosed interior passage is adapted to receive fluid forced through the interior passage.

30. The computer of claim 29, wherein the heat sink comprises a relatively thin plate.

31. The computer of claim 29, wherein the heat sink has a top surface and a bottom surface and the at least one prong extends from the top surface and wherein the bottom surface is adapted to receive a processor removably mounted thereto.

32. The computer of claim 29, wherein the at least one prong comprises a cylindrical rod.

33. The computer of claim 29, wherein the heat dissipation apparatus further comprises walls that enclose the interior passage, at least one of the walls being connected to the heat sink.

34. The computer of claim 33, wherein the walls include opposed side walls that are connected to the heat sink and a top wall that is positioned opposite the heat sink.

35. The computer of claim 29, wherein the heat dissipation apparatus further includes an inlet end that is adapted to receive a forced fluid flow and an outlet end that is adapted to exhaust the fluid flow.

36. The computer of claim 35, wherein the heat dissipation apparatus further includes an inlet fan module positioned at the inlet end of the computer, the inlet fan module being adapted to force fluid into the interior passage.

37. The computer of claim 35, wherein the heat dissipation apparatus further includes an outlet fan module positioned at the outlet end of the computer, the outlet fan module being adapted to draw fluid out of the interior passage.